

201642

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 143389

Tuesday, March 15, 2016 11:42:35 AM

143389

Page 3

Item ID: D5101-5 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Insert
 Start Date: 4/29/2016 Start Qty: 24.00 ***24*** Cust Item ID:
 Required Date: 5/6/2016 Req'd Qty: 24.00 ***24*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>St 151</u>	0.00							
160						24	DAS 6		
Packaging	Memo	0.00					9-89		APR 07 2016
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									APR 07 2016
QC	Memo	0.04							
Quality Control									

ML5 APR 07 2016

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Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		☐ OTHER : _____							

Picklist Print

Tuesday, March 15, 2016 11:42:35 AM

Page 1
/

Work Order ID: 143389

143389

Parent Item: D5101-5

D5101-5

Parent Item Name: Insert

Start Date: 4/29/2016

Required Date: 5/6/2016

Start Qty: 24.00

Required Qty: 24.00

Comments: IPP REV:A NEW ISSUE 14-12-18 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R0.750		Purchased		No			f	26.0895		1.061053			

M6061T6R0 750

6061-T6 Round Bar .750"

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT012	26.0895	
m131999	1.2705	
m133560	2.069	
<u>m134158</u>	22.75	

1,625 ^{PS}
DAS
45
9-89 2016-4-4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



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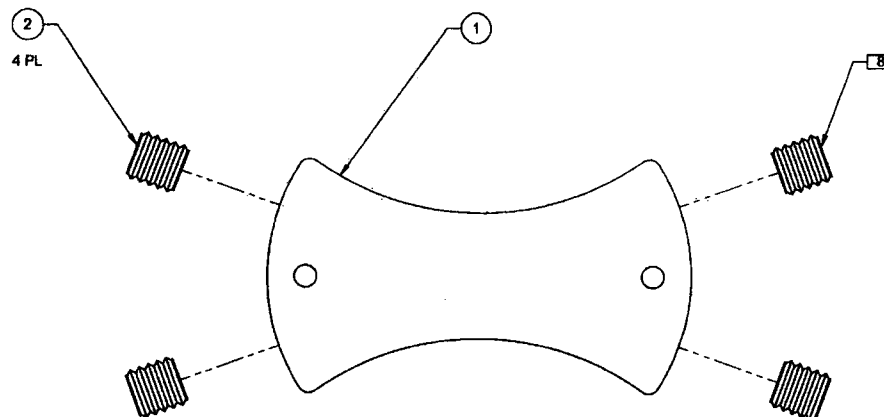
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INSPECTION SHEET

Rev	Date	Change	Revised by	Approved
A	15.10.14	New Issue	KJ 	

ITEM	QTY	P/N	DESCRIPTION
	X	D5101-041	CROSSBOLT SPACER ASSY
1	1	D5101-1	CROSSBOLT SPACER
2	4	MS21209F7-10	HELICOIL, LOCKING

△B



D5101-041 CROSSBOLT SPACER ASSY

SHOP COPY
RETURNED
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 143289 MJ
1603-17

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.14 lbs
- 8) INSTALL MS21209F7-10 HELICOIL ONE FULL REVOLUTION BELOW SURFACE

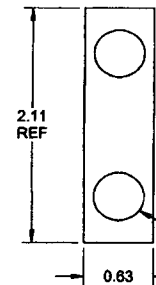
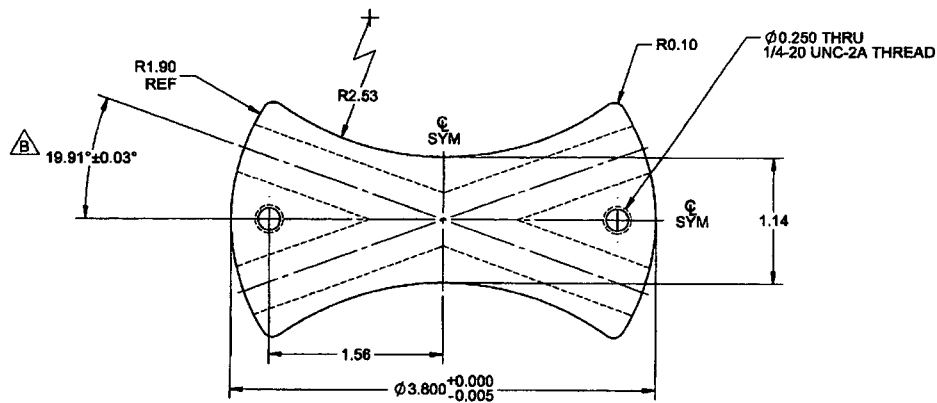
△B

△B

RELEASED
2015-12-09
ECN 15-651

APPROVED

B	REVISE NOTE 6 (SH 1, 3 & 4) & NOTE 8 (SH 1), REVISED HELICOIL ANGLE TO 18.91° WAS 19°. ADD D5101-77-047 (SH 580). REMOVE 0.098 HOLES FROM -1, MS21209F7-10 WAS MS21209F7-15.	DB	15.10.15
A	NEW ISSUE	AK	14.08.07
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 1 OF 6
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
DATE	15.10.15	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR ANY DISSEMINATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



Ø0.453 THRU, 2 PL
TAP FOR HELICOIL INSERT
7/16-20 UNF 0.75 DEEP
4 PL

D5101-1 CROSSBOLT SPACER

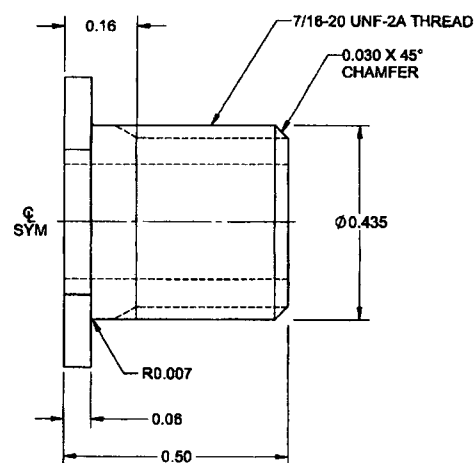
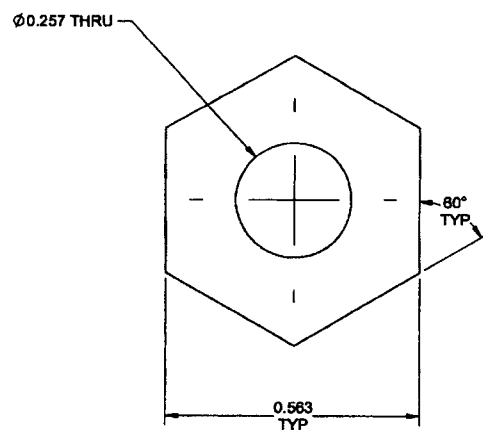
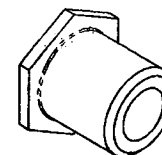
NOTES:

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
REF DART SPEC M-DELRIN-B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.12 lbs

RELEASED
2015-12-09

APPROVED

DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 2 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
DATE	15.10.15	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



D5101-3 INSERT

NOTES:

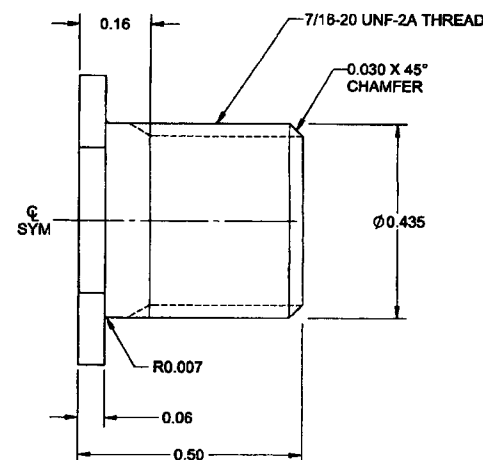
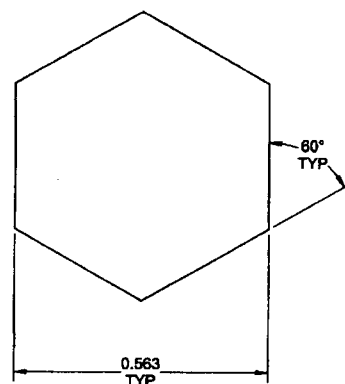
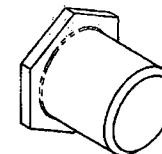
- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8
(OR AMS 4160) OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.005 lbs



RELEASED
2015-12-09

APPROVED

DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 3 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
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D5101-5 INSERT

NOTES:

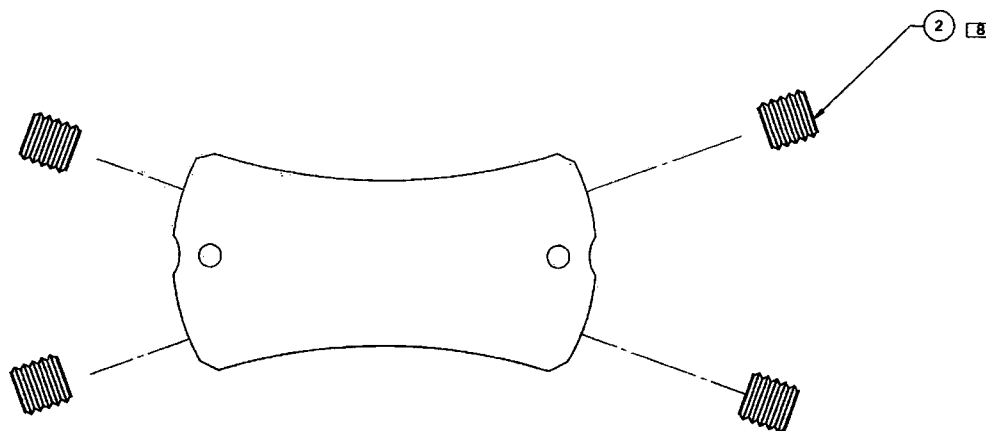
- 1) MATERIAL: 6061-T6/T651/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8
(OR AMS 4160) OR ASTM B211 OR ASTM B221
REF DART SPEC M6081T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.008 lbs

RELEASED
2015-12-09

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DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 4 OF 6
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
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ITEM	QTY	P/N	DESCRIPTION
	X	D5101-047	CROSSBOLT SPACER ASSY
1	1	D5101-7	CROSSBOLT SPACER
2	4	MS21209-7-10	HELICOIL, LOCKING



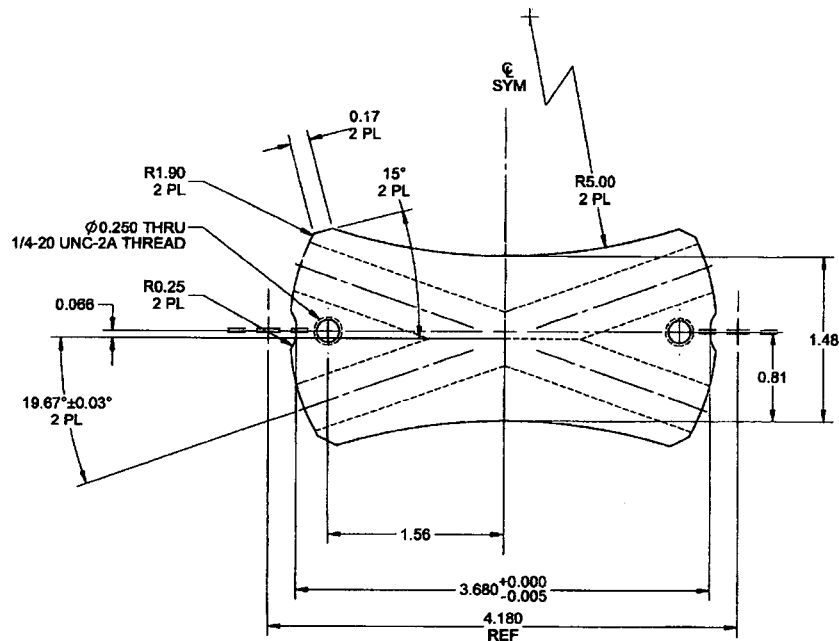
D5101-047 CROSSBOLT SPACER ASSY

NOTES:

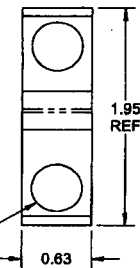
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.16 lbs
- 8) INSTALL MS21209F7-10 HELICOIL ONE FULL REVOLUTION BELOW ADJACENT SURFACE

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DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 5 OF 6
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
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Ø0.453 THRU, 2 PL
TAP FOR HELICOIL INSERT
7/16-20 UNF, 0.75 DEEP
4 PL



D5101-7 CROSSBOLT SPACER

NOTES:

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
REF DART SPEC M-DELRIN-B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.13 lbs
- 8) REFER TO CAD FILE D5101-7B.STEP FOR UNDIMENSIONED DETAILS

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2015-12-09

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DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	AP	EUGENE, OR	
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5101	SHEET 6 OF 8
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
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